

Unexplained Symptom Syndromes After War & Terrorism Deployment Cycle Support Conference

LTC Charles Engel, MC

**Dir, Deployment Health Clinical Center
Walter Reed Army Medical Center
Associate Professor & Assistant Chair
(Research)**

**Department of Psychiatry
Uniformed Services University**

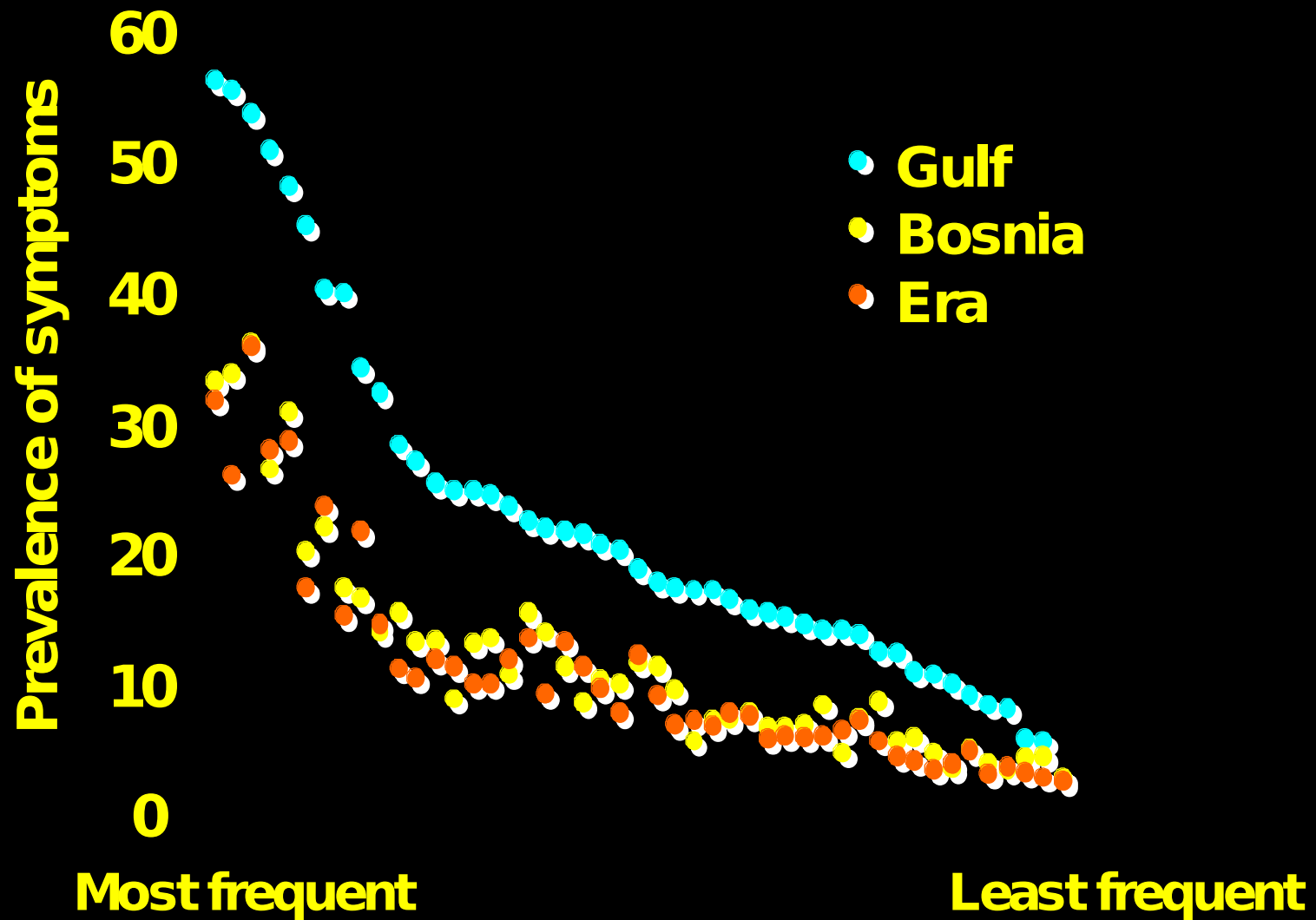
— 7 APR 03 —

UNCLASSIFIED

Operations Desert Shield & Storm

- ♠ **Half-million troops**
- ♠ **Halfway around the globe**
- ♠ **Decisive military victory**
- ♠ **Low rates of DNBI**
- ♠ **Fewest associated deaths of any U.S. war**

UNCLASSIFIED



Wessely, Lancet 16 Jan 1999

17% of UK Gulf War Veterans
believe they have “Gulf War
Syndrome”

UNCLASSIFIED



Gulf War Health Center

Caring for America's Finest

Walter Reed Army Medical Center



A Unique Phenomenon?

Post-War & Post-Deployment Syndromes

“Poorly understood war syndromes have been associated with armed conflicts since at least the US Civil War.”

“...war syndromes have involved fundamental, unanswered questions about chronic somatic symptoms...”

**Hyams et al. *Ann Intern Med*
1996;125:398**

UNCLASSIFIED

Gulf War Syndrome

Agent Orange

PTSD

Battle fatigue

Neurocirculatory asthenia

Shell shock

Effort syndrome

Da Costa's syndrome

Soldier's heart

Recent Unexplained Syndromes Involving the Military, War, Deployment, or Terror

- ♠ **Dutch peacekeepers in Lebanon (1980s)**
- ♠ **“Jungle Disease” (Dutch peacekeepers in Cambodia)**
- ♠ **Gulf War Syndrome**
- ♠ **Afghanistan Syndrome (Russia, 1990s)**
- ♠ **Chechnya Syndrome (Russia, 1990s)**

- ♠ **Illnesses after 1992 El Al Airliner crash in Amsterdam**
- ♠ **Illnesses after anthrax vaccination (1990s)**
- ♠ **Dutch peacekeepers in Bosnia (1995-6)**
- ♠ **Canadian peacekeepers in Croatia (late 1990s)**
- ♠ **Balkan War Syndrome**

SPECIAL REPORT Newsweek®

November 5, 2001: \$3.95

newsweek.msnbc.com



DUST AND FEAR: Doctors see an unusual number of respiratory complaints

HEALTH Now, 'WTC Syndrome'

ing coughs and sinus infections to posttraumatic stress and acute lung traumas, including severe asthma requiring mechanical respiration.

The syndrome appears to be

vasculitis
ease wh
caused b

No on
the long
a random

Irradiated mail linked to health ills

Report not conclusive but suggests precautions



Trenton Post Master Joseph Sautello holds a piece of irradiated mail during a news conference on November 30, 2001, in Hamilton, N.J.

William Thomas Cain / Getty Images file

ASSOCIATED PRESS

WASHINGTON, July 2 — A substantial number of congressional employees may have experienced

Lung, eye ills most common at WTC

CDC offers first analysis of immediate health impact of attack

Rescue workers who sought medical care at ERs sustained injuries associated with fires, unstable rubble, sharp-edged building fragments, and exposure to smoke.



Reuters file

Acid reflux at Ground Zero

Unexpected digestive ailment crops up



Daniel Shanken / AP file

By Francesca Lyman
MSNBC CONTRIBUTOR

— Five months after the attacks, emergency rescue workers as well as thousands

Concerns, Symptoms, & Disability after WMD

Health

ROBERT BAZELL'S HEALTHBEAT

Asthma plagues Ground Zero heroes



Nightly News

Many firefighters facing unknown medical consequences

One in four Ground Zero firefighters has asthma. NBC's Robert Bazell reports.

Free Windows Media Player [PLAY VIDEO](#)

By Robert Bazell
NBC NEWS

NEW YORK, Jan. 8 — We've all heard the tragic

The beat goes on...

November 20, 2001

The Rampart

Page 4

CHPPM Team keeps Freedom in check

Information Provided by The U.S. Army Center for Health Promotion and Preventive Medicine

The U.S. Army Center for Health Promotion and Preventive Medicine—home to chemists, a health physicist, environmental engineers, an occupational environmental medicine physician and toxicologist. CHPPM-Europe has been asked to provide the initial characterization of potential environmental threats at Stronghold Freedom by the JSOTF Commander IAW DoD Directive 6490.2 that directs forces "to monitor environmental, occupational and epidemiological threats" for all deployments over thirty days.

team determined the soil in the trench is contaminated with jet fuel, most likely from a leaking Soviet-era underground fuel distribution system. Although the odor in the trench with clean soil, the vapors will not be inhaled by people working or living in the area.

The CHPPM-Europe team has also been examining an area outside of the berm. Asbestos from a few pieces of missile debris has been found, along with some low-level radioactivity from uranium.

Asbestos is only harmful if inhaled. Therefore, the team is monitoring the

Despite this demonstration of no exposure, the Stronghold command is taking steps to decrease the possibility of airborne exposures even further.

The radioactivity poses minimal Commons of Lt. Col. Bill Rice through the Stronghold Freedom Environmental Science Officer.



photo provided by US Army Center for Health Promotion and Preventive Medicine

(From left to right) Spc. James Winston, Capt. Rick Chavez, and Sgt. Matt Nicholls drill for soil samples. These samples are then prepared and shipped to CHPPM-Europe's world-class environmental laboratory for thorough analysis.

News from MSNBC

Get breaking news alerts from



AMERICA AT WAR
THE WAR

Complete coverage

News
Business
Sports
Local
Health
Tech • Science
Living • Travel
TV News
Opinions

U.S.: Nerve gas found at Uzbek base

Troops show no effect; thought to be from Soviet-era arsenal

ASSOCIATED PRESS

BAGRAM, Afghanistan, June 9 — Traces of nerve agents and mustard gas have been found in three locations at a U.S. base in Uzbekistan, including

UNCLASSIFIED

Unexplained Physical Symptoms

Medicine's "Dirty Little

Secret"

<u>Specialty</u>	<u>Clinical Syndrome</u>
Orthopedic	Low Back Pain Patellofemoral Syndrome
Gynecology	Chronic Pelvic Pain Premenstrual Syndrome
ENT	Idiopathic Tinnitus
Neurology	Idiopathic Dizziness Chronic Headache
Urology	Chronic Prostatitis Interstitial Cystitis Urethral Syndrome
Anesthesiology	Chronic Pain Syndromes
Cardiology	Atypical Chest Pain Idiopathic Syncope Mitral Valve Prolapse
Pulmonary Syndrome	Hyperventilation
Endocrinology	Hypoglycemia

<u>Specialty</u>	<u>Clinical Syndrome</u>
Dentistry	Temporomandibular Disorder
Rheumatology	Fibromyalgia Myofascial Syndrome Siliconosis
Internal Medicine	Chronic Fatigue Syndrome
Infect Disease	Chronic Lyme Chronic Epstein-Barr Virus Chronic Brucellosis Chronic Candidiasis
Gastroenterology	Irritable Bowel Syndrome Gastroesophageal Reflux
Physical Medicine	Mild Closed Head Injury
Occ Medicine	Multiple Chemical Sensitivity Sick Building Syndrome
Military Medicine	Gulf War Syndrome
Psychiatry	Somatoform Disorders

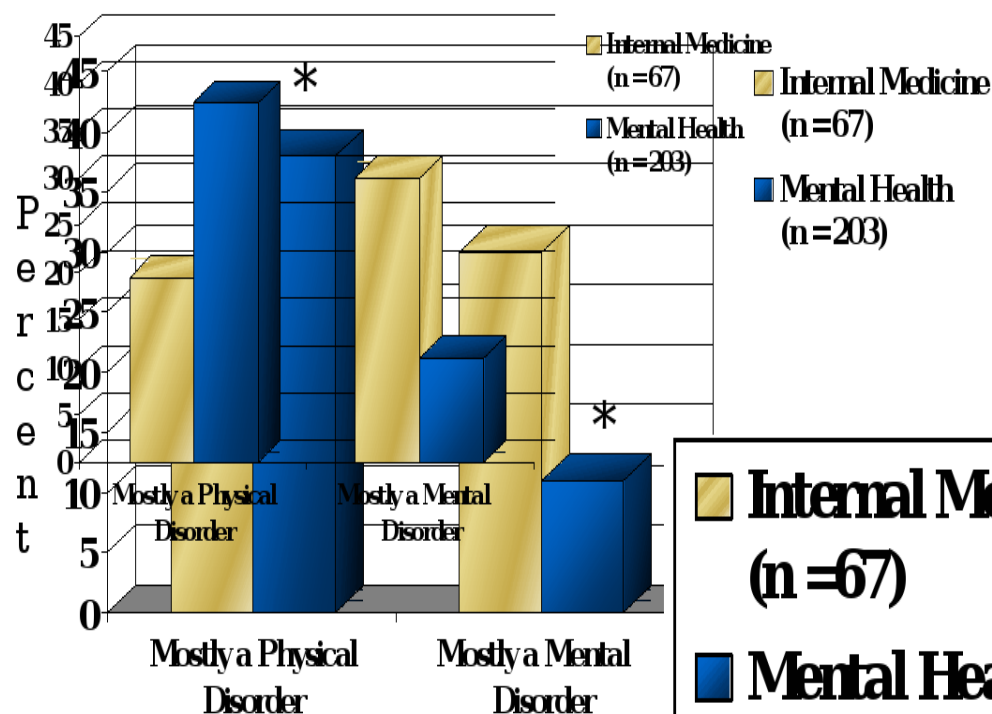
UNCLASSIFIED

Medically Unexplained Symptoms

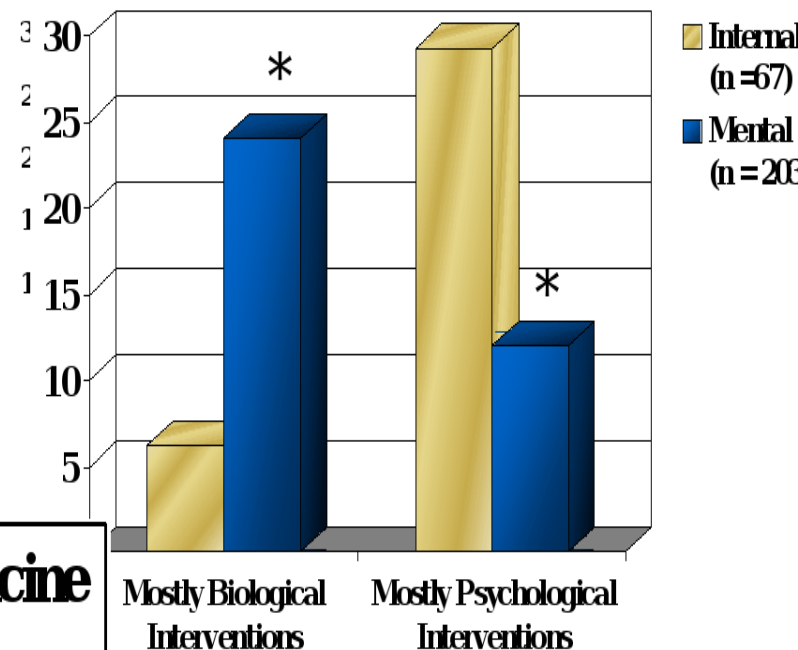
- ♠ ~85% of all symptoms that are undiagnosed after the initial history and physical examination.**
- ♠ 25-30% of all the symptoms that patients report to physicians.**
- ♠ “Unexplained Illnesses” after 1991 Gulf War has cost the government ~\$400,000.**
 - > \$210 million to fund over 220 research grants.**
 - > 100,000 of 697,000 US Gulf War veterans have sought DoD and/or VA health care.**

UNCLASSIFIED

Rate the degree to which you believe
"Persian Gulf Illness" is:

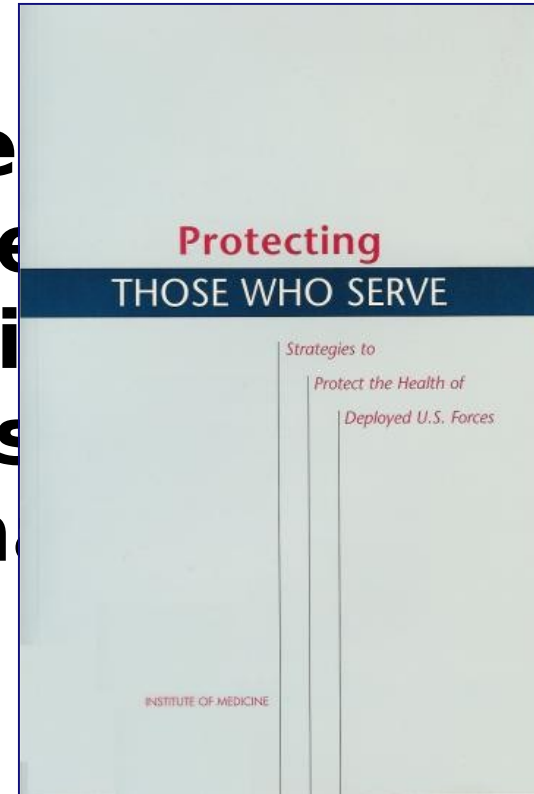


Rate the degree to which you believe
"Persian Gulf Illness," in general,
is most effectively treated by:



Institute of Medicine

♠ **Strategy 5: “Implement strategies to address medically unexplained physical symptoms in populations that have been deployed.”**



UNCLASSIFIED

DoD Centers for Deployment Health

ASD(HA) Policy Letter - 30 Sep

1999 Consistent with Section 743 of the Strom Thurmond National Defense Authorization Act, 1999, IoM, & PRD-5

- ♠ **Deployment Health Clinical Center ***
at Walter Reed Army Medical Center
- ♠ **Deployment Health Research Center**
at Naval Health Research Center in San Diego
- ♠ **Deployment Health Surveillance Center**
at Center for Health Promotion & Preventive Medicine

*** Abbreviated as “DHC”**

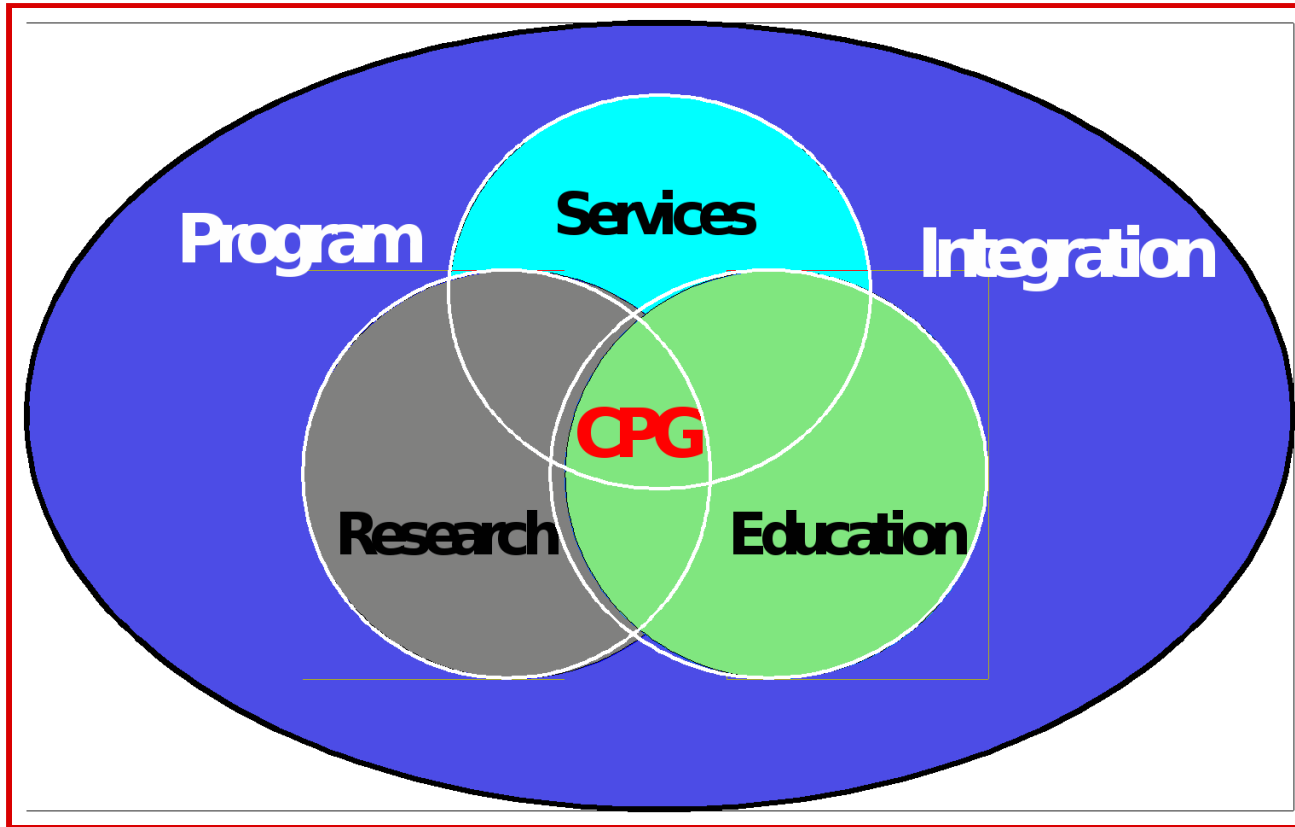
UNCLASSIFIED

DHCC Mission

**Improve post-deployment
health care**

UNCLASSIFIED

DHCC CONOPS



* **CPG** = DoD/VA Post-Deployment Health Evaluation & Management Clinic

UNCLASSIFIED

Post-Deployment CPG

Concept & Development

- ♠ **Fulfills recommendations two IoM panels**
 - **DoD & VA assessments for Gulf War veterans**
 - **Force Health Protection**
- ♠ **Concept derived from collaboration of DoD and VA clinical experts in April 1998**
- ♠ **Briefed & approved...**
 - **DoD - Deputy Assistant Secretary of Defense for Health Affairs**
 - **VHA - Chief Public Health & Environmental Hazards Officer**

UNCLASSIFIED

Post-Deployment CPG

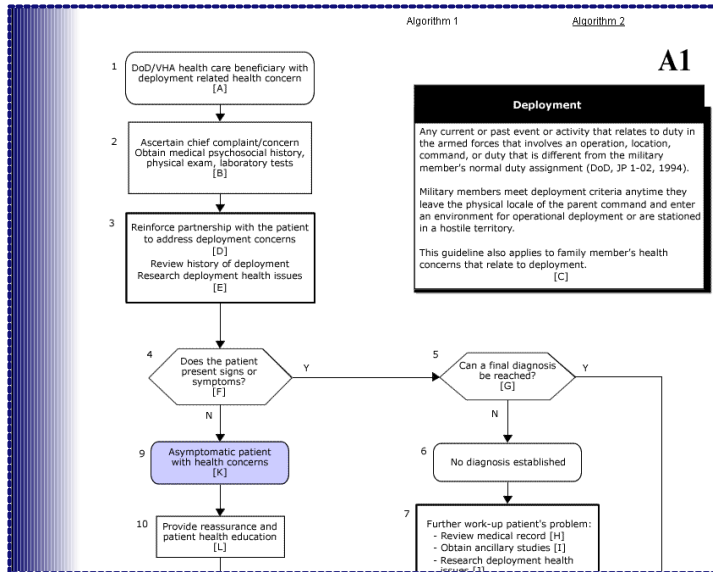
Concept & Development (Cont'd)

- ♠ **Field tested for six months:**
 - **Fort Bragg**
 - **Camp Lejeune**
 - **Maguire Air Force Base**
- ♠ **Start-up implementation - 1 Feb 2002**
- ♠ **Serves as backbone for improving post-deployment health care**

UNCLASSIFIED

DoD-VA CLINICAL PRACTICE GUIDELINE ON **POST-DEPLOYMENT HEALTH EVALUATION & MANAGEMENT**

<http://www.PDHealth.mil>



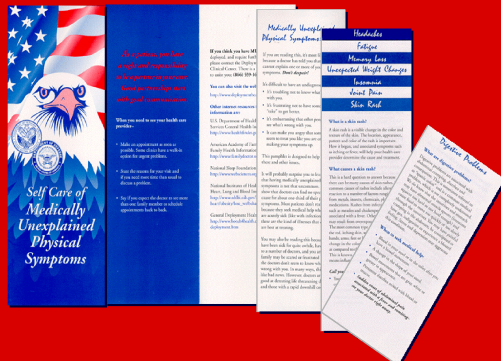
FEATURES...

- ♠ Military-unique vital sign
- ♠ Stepped care framework
- ♠ Risk communication guidance
- ♠ Web-based clinician support
- ♠ Longitudinal care emphasis
- ♠ Data automation features
- ♠ Metrics & outcomes

monitoring

"Is your visit related to deployment?"

Self-Help Information Tools



Health Assessments

**(Tools available at
www.PDHealth.mil)**

- ♠ Medical & Exposure Assessment**
- ♠ Short Form 36 v2**
- ♠ Patient Health Questionnaire
(PRIME-MD)**
- ♠ Posttraumatic Stress Disorder
Checklist**

UNCLASSIFIED